

IN RE APPLICATION OF YVES DECOSTER
SUBSTITUTE SPECIFICATION PURSUANT TO 37 C.F.R. 1.125,
CLEAN VERSION WITHOUT MARKINGS

Seat occupancy detector

TECHNICAL FIELD OF INVENTION

The present invention generally relates to a seat occupancy detector e.g. for
5 use in an automotive vehicle.

BRIEF DESCRIPTION OF RELATED ART

In modern vehicles, seat occupancy sensors are widely used in order to detect
whether a passenger seat is occupied or not. The information about the occupa-
10 pancy of the passenger seat may then be used in order to control the deploy-
ment of one or more airbags associated to the passenger seat (the deployment
is e.g. inhibited if the passenger seat is found to be non occupied) or in the
triggering of a seat belt reminder.

The occupancy sensors usually comprise pressure sensing devices integrated
in the respective passenger seat for detecting a pressure induced by the
15 presence of a passenger into the seat. The pressure sensing devices, as e.g.
disclosed in DE-A-42 37 072, comprise a plurality of individual force sensors,
which are connected in a suitable manner to a control unit designed for measur-
ing a pressure depending electrical property of said individual pressure sensors.

These occupancy sensors have proven to be very reliable and well adapted to
20 the detection of seat occupancy. However one drawback of these occupancy
sensors lies in the fact, that the pressure sensing device has to be physically
connected to the control unit by means of connection wires in order to be
functional. This need for physically connecting the sensing device to the control
unit causes problems in modern cars equipped with a flexible seating system
25 with removable and/or displaceable back seats.